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P.O. Box 260784  
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**VIA HAND DELIVERY**

April 5, 2010

Arnold Ott, P.E.  
Assistant District Director  
Railroad Commission of Texas  
10320 IH 37  
P.O. Box 10307  
Corpus Christi, TX 78460-0307

Re: Site Investigation Work Plan  
Superior Crude Gathering, Inc., Ingleside, San Patricio County, Texas

Dear Mr. Ott:

Please see attached to this letter a Site Investigation Work Plan developed by Pastor, Behling & Wheeler, LLC (PBW). The purpose of this plan is to document proposed field and sample collection procedures for an investigation of a crude oil release at the Superior Crude Gathering Inc. site in Ingleside, TX. The overall objective of the investigation is to provide the data necessary to delineate the extent of impacted media at the site such that a remediation plan can be developed.

Please contact me with any questions regarding the information presented in this letter. We look forward to continuing to work with the Railroad Commission to complete the necessary actions.

Very truly yours,



Jeff Kirby, President  
Superior Crude Gathering, Inc.

cc: David Cooney  
Assistant Director, Environmental Law  
Railroad Commission of Texas  
1701 North Congress Avenue  
P.O. Box 12967  
Austin, TX 78711-2967

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**SITE INVESTIGATION WORK PLAN**

**SUPERIOR CRUDE GATHERING, INC.  
INVESTIGATION OF CRUDE OIL RELEASE  
INGLESIDE, TEXAS**

**April 5, 2010**

*Prepared for:*

**SUPERIOR CRUDE GATHERING, INC.  
Ingleside, Texas**

*Prepared by:*

**PASTOR, BEHLING & WHEELER, LLC  
131 N. Virginia  
Suite B  
Port Lavaca, TX 77979  
(361) 553-6442  
Fax: (361) 553-6449**

**PBW Project No: 3190**

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## **1.0 INTRODUCTION**

### **1.1 Project Objectives**

This Site Investigation Work Plan was prepared by Pastor, Behling & Wheeler, LLC (PBW) to address field, sampling, and analytical activities proposed for the Superior Crude Gathering Inc. (Superior) site in Ingleside, Texas (the Site). The purpose of this plan is to document proposed field and sample collection procedures for an investigation of a crude oil release at the Site. The overall objective of the investigation is to provide the data necessary to delineate the extent of impacted media at the Site such that a remediation plan can be developed.

### **1.2 Site Description and Background**

The Site is located within the former Falcon Refinery at 1472 FM 2725 in Ingleside, San Patricio County, Texas. The property is owned by National Oil Recovery Corporation (NORCO). Since 2002, Superior has leased three tanks (designated as Tanks 13, 15 and 16 (Figure 1)), which have a capacity of 100,000, 55,000 and 55,000 barrels (bbls), respectively. The three tanks are located within a larger tank farm, as shown on Figure 1.

On February 9, 2010, crude oil was discovered leaking from Tank 13 into the containment area around the tank and approximately 22,000 bbls of crude oil eventually leaked from the tank. The crude oil in Tank 13 was South Texas crude obtained from various oil fields in south and central Texas. Although the berms and dikes around Tank 13 contained the oil, a significant amount of oil was carried by underground piping into the containment area around another storage tank facility on the Falcon Refinery property. This storage facility, which Superior does not lease from NORCO, is adjacent to small pond in the area (the "Duck Pond") (Figure 1). It was determined that this other containment area had an open pipe that allowed approximately 2,200 bbls of crude oil to flow into the pond. Crude oil that leaked from Tank 13 also moved from the containment area around that tank to the containment areas around Tanks 12 and 30, although the mechanism for this movement of oil is unclear. Also on February 10, 2010, it was discovered that Tank 15, which was being used to contain spilled oil from Tank 13, was also leaking into its containment area. Figure 2 shows the extent of the crude oil spill at the Site.

Immediately after the release, Superior initiated oil recovery and clean-up activities at the tank farm and Duck Pond. Oil was recovered using drum skimmers, vacuum skimmers, rope mops, and "super suckers". A system of vacuum trucks, pumps, "frac" tanks, push boats and marine storage was used move and contain the oil. At the Duck Pond, 1,100 linear feet of hard boom was initially deployed to contain the oil, and an additional 500 linear feet of boom was later deployed. The Duck Pond cleanup was completed on February 19, 2010, with 2,200 bbls of crude oil recovered.

Since the initial response, Superior has continued to recover oil and remove contaminated soil, water and debris. Superior has taken precautions to minimize the further spread of crude oil contamination within the immediate area of the release. Superior has used water under high pressure to move the oil and "wash" the tank farm soil where crude was released. This water is being reused, and some water remains in the tank farm containment areas.

As of the date of this plan, almost all of the free oil and associated liquids have been recovered from the tank farm. The soil investigation described in Section 2 of this work plan will be conducted once all crude oil, visually-contaminated material, and water used during the cleanup have been removed from the tank farm area.

### **1.3 Project Responsibilities**

Responsibilities of key project individuals in the implementation of this Site Investigation Work Plan are as follows:

- PBW Project Manager – Matt Wickham, (361) 553-6442: responsible for overall project quality related to the collection and reporting of investigation data.
- PBW Field Supervisor – John Brayton, (512-695-8609): responsible for activities related to the field investigation.
- Analytical Manager - Ed Fry, ALS Laboratory Group, (281) 530-5656: responsible for all analytical activities. He will work closely with the PBW Project Manager regarding analytical QA/QC requirements.

## **2.0 SAMPLING AND ANALYSIS PLAN**

### **2.1 Work Plan Rationale**

The primary investigative objective at the Superior site is to evaluate the impacts to site soil from the crude oil spill relative to the applicable regulatory criteria. The investigation will be limited to that portion of the NORCO property that has been impacted by the release of crude oil from Tank 13 (Figure 2), excluding the Duck Pond. No investigation will be conducted in the Duck Pond since all crude oil was recovered from the Duck Pond area.

### **2.2 Scope of Work**

A detailed scope of work is provided in Tasks 1 through 4 below.

#### **Task 1 - Finalize Work Plan and Prepare for Field Activities**

Task 1 will include the following activities:

- Prepare Site-Specific Health and Safety Plan (HASP).
- Procure sampling and other field equipment (GPS, etc.).
- Coordinate with analytical laboratories.
- Coordinate with agency personnel, as needed.

#### **Task 2 – Soil Sampling**

Soil samples will be collected at the general locations shown on Figure 3. In general, four soil samples will be collected from each tank containment area where crude was released (one in each quadrant). At the containment area for Tank 16, crude oil did not impact the entire tank containment area and only two samples will be collected at this area. In addition to the tank containment areas, six soil samples will be collected from the drainage ditches south of the tank farm. Samples will be collected from 0-6 inches at each location.

All samples will be analyzed for:

- Total petroleum hydrocarbons (TPH) by method TX1005;
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX) by EPA method 8021B.

The soil sample with the highest TPH concentration by TX1005 will be analyzed for TPH using method TX1006.

In addition to the soil samples, field duplicate samples will be collected at the rate of one duplicate per 20 samples collected (and at least one per day of sampling). The duplicate samples will be "blind", i.e., they will be given a unique sample ID and included with the original samples. One equipment blank sample will also be collected. The equipment blank will be collected by capturing distilled water poured over the decontaminated or disposable sampling equipment.

Samples will be collected using a disposable, plastic hand trowel or stainless-steel soil core sampler fitted with plastic liners. Samples will be composited in a stainless steel, decontaminated mixing bowl (or other decontaminated or disposable container such as a plastic Ziploc bag) and the appropriate amount placed in the sample containers provided by the laboratories.

The field geologist or engineer will note the lithology (i.e., approximate percentages of sand, silt and/or clay) and other characteristics (e.g., color, odor, etc.) of each sample on a field log.

All samples will be packaged and delivered to the laboratory in a way to best preserve the integrity of the samples. Samples will be immediately placed in ice chests containing sufficient ice to keep the samples below 4 degrees Celsius. Glass sample containers will be wrapped in protective packaging, as necessary, to prevent breakage. The ice chests will be sealed with tape for shipment to the laboratory via overnight courier or hand delivered by sampling personnel. A chain-of-custody form will be completed and placed in each ice chest with the samples. The chain-of-custody will note the sample identification, date and time of sample collection, sample preservation, sample container volume and type (plastic, glass, etc.) the number of containers and the laboratory analysis to be performed. Table 1 shows the container type, size, number required, and holding times for each type of analysis.

All sample locations will be surveyed in the field using a differential global positioning satellite (GPS) instrument (Trimble® GeoXT).



Investigation-derived wastes (primarily expected to be used personal protective equipment) will be placed in drums or roll-off boxes and characterized as appropriate for subsequent disposal.

### **Task 3 – Perform Risk-Based Screening**

ALS Laboratory Group will provide a report with the analytical results from the analysis of the soil samples. A quality control report will be issued with the final analytical results. The quality control report will include the analytical method, detection limit, laboratory flags, dilution factor, date analyzed, and results of all QC analyses, including laboratory blank, control, duplicate, matrix spike, and matrix spike duplicate samples. The laboratory will provide a description of any limitations on the use of the data.

The soil analytical results will be tabulated and screened against applicable risk-based regulatory criteria for TPH and BTEX.

### **Task 4 - Prepare Report and Remediation Plan**

Following review of the site data and comparison of the data to regulatory criteria, PBW will prepare a that will also include a proposed remediation plan. At a minimum, the report will include the following:

- Sample location map (with stock aerial photograph as a base map);
- Tabulated and graphical presentation of investigation data including spatial distribution of hydrocarbons detected in soil at the Site;
- Data table comparing soil concentrations to applicable regulatory criteria;
- Summary of field investigation methods;
- Photographs;
- Identification of the nature and extent of soil requiring remediation relative to applicable regulatory criteria, and a preliminary evaluation of remediation alternatives to achieve closure under the Operator Cleanup Program (OCP) of the Railroad Commission of Texas (RRC).

**Table 1**  
**Sampling and Analytical Requirements**

PARAMETER	METHOD	CONTAINER			PRESERVATION	HOLDING TIME
		SIZE	NUMBER	TYPE		
TPH	TX 1005	4 oz.	1	Clear glass	4° C	14 days
TPH	TX 1006	4 oz.	1	Clear glass	4° C	14 days
BTEX	EPA 8021	4 oz.	1	Clear glass	4° C	14 days

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**SUPERIOR CRUDE GATHERING, INC.**

Figure 1

**SITE LOCATION MAP**

PROJECT: 3190	BY: ZGK	REVISIONS
DATE: MARCH, 2010	CHECKED: MKW	

**PASTOR, BEHLING & WHEELER, LLC**  
CONSULTING ENGINEERS AND SCIENTISTS







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TOMMIE SEITZ  
DIRECTOR, OIL & GAS DIVISION  
FERMIN MUNOZ, JR.  
DISTRICT DIRECTOR

## RAILROAD COMMISSION OF TEXAS OIL AND GAS DIVISION

March 5, 2010

**CERTIFIED MAIL NO.: 7009 2250 0001 9789 3451**

SUPERIOR CRUDE GATHERING, INC. (P-5 830262)  
P O BOX 260784  
CORPUS CHRISTI TX 78426

RE: Notice of Violation  
Falcon Refinery location  
Superfund CU site (EPA ID TXDO86278058)  
Ingleside Terminal site  
San Patricio County, Texas

This office received your March 1, 2010 Statewide Rule 20 letter and request for an extension of time for completion of cleanup operations at the above referenced site. Your request for an extension of time for assessment and finalizing cleanup plans is denied. The inspector observed freestanding crude oil during a March 3, 2010 inspection. Pursuant to SWR 91, this office directs you to remove all freestanding crude and associated liquids immediately. We note the following violations of Statewide Rules, and anticipate the following cleanup deadlines:

STATEWIDE RULE 20(a)(1): A reportable crude spill occurred on February 9, 2010 and was not reported by the operator to the District Office by telephone.

*Submit H-8 and Interim H-8 by March 15, 2010.*

STATEWIDE RULE 8(d)(1): At the Falcon Refinery site a crude spill in excess of 20,000 barrels occurred leaving affected soil on site in a sensitive area.

*Horizontal and vertical delineation and remediation of crude contamination based on Tier 1 criteria for crude constituents (such as BTEX and TPH) is preferred. Waste soils should be further characterized to include TPH, BTEX, VOC, SVOC, RCRA 8 Metals, chlorides, and additional items and/or information that provide for proper characterization. Submit a work plan for removal/remediation of affected soil by April 5, 2010.*

STATEWIDE RULE 91: Cleanup has not been completed. All free crude oil has not been removed.

*The site is a sensitive area. Remove all freestanding crude and associated liquids immediately. Submit proposal for contaminated soil removal/remediation by April 5, 2010.*

Please respond to this letter on or before March 15, 2010 indicating progress toward removal of free-phase crude and associated liquids, and progress toward the work plan for contaminated soil removal/remediation. Our file review is scheduled on or after March 15, 2010. Your cooperation in correcting the above violations will be appreciated but will not eliminate further Commission action.

Yours truly,

A handwritten signature in dark ink that reads "Arnold Ott, P.E.".

Arnold Ott, P.E.  
Assistant District Director

Job Number: 2010-04 1522  
Spill file

cc: John W. Camp, Attorney for Superior Crude Gathering – via FACSIMILE 512-474-0731